



**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

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Order Instituting Rulemaking to Implement the
Commission's Procurement Incentive Framework
and to Examine the Integration of Greenhouse Gas
Emissions Standards into Procurement Policies.

Rulemaking 06-04-009
(Filed April 13, 2006)

And

CEC Docket No. 07-OIIP-01

COMMENTS OF AES SOUTHLAND L.L.C.

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Pursuant to the direction provided in the October 15th, 2007 Administrative Law Judge's Ruling under Rulemaking 06-04-009, AES Southland L.L.C. respectfully submits the following comments to the questions raised regarding distribution of allowances under a greenhouse gas (GHG) emission trading program for the electricity sector.

AES Southland L.L.C. ("AES SL") is a wholly owned subsidiary of AES Corporation (NYSE:AES). AES Corporation ("AES") owns and operates 125 power plants with a total installed capacity of 44,000 MW in 28 countries on 5 continents. In California alone, AES owns and operates 4,300 MWs which represent approximately 9 % of the in-state electrical generation for California and 20% of installed capacity base in Southern California. AES has first-hand experience operating under the European Union Emissions Trading System (EU ETS) and Kyoto Protocol as a Regulated Entity, an Offset Developer and a Market Trading Participant.

AES SL is encouraged by the fact that these two Commissions¹ have taken a leadership role in formulating recommendations to the California Air Resources Board (CARB) on implementation of AB32 in the electric sector, as these two Commissions have an in-depth understanding of the sector specifics. To this end, we would like to direct the Commissions' attention to the following three significant factors that should be important considerations when evaluating allowance distribution schemes for the electric sector:

¹ California Public Utilities Commission and California Energy Commission

1. Existing in-state fossil-fired generation assets continue to provide an important grid support function due to their physical proximity to load pockets and their placement within the transmission network. Any rapid or radical regulatory change impacting the viability of these assets must be avoided to prevent any unintended grid reliability consequences.
2. Investments were made in these existing capital-intensive assets under a completely different regulatory regime that did not anticipate GHG regulations. Any allowance distribution methodology that is adopted must allow sufficient time for these entities to transition to a carbon constrained environment without causing unintended consequences or unfairly harming those that have invested in California's electricity sector.
3. Electricity prices may increase (and in our opinion should) when GHG regulations become effective. The increase in electricity prices will allow some regulated entities to recover some of their costs associated with the GHG regulations from the market. However, the ability for some market participants to pass-through a portion of their GHG costs does not support the argument made by some stakeholders that all allowances should be auctioned at the outset of the program. There are offsetting impacts to regulated entities that can not and will not be passed on to the market and recovered through higher electricity prices. These include:
 - Legacy contracts that do not allow for the pass-through of GHG costs.
 - A decrease in the total volume of electricity sold due to the demand side response associated with higher prices and greater energy efficiency.
 - A shift to other generation sources that reduces the volume of electricity sold by certain market participants or causes the retirement or shutdown of facilities sooner than otherwise would have occurred.
 - Significant capital expenditures required to comply with the GHG cap.

- The credit and cost of capital impacts associated with purchasing allowances through an auction.

The electric sector will face substantial compliance costs under a GHG trading system – costs that were not planned for in the original long-term investment decisions. The administrative allocation of allowances to regulated entities would help to mitigate these costs, and ease the sector’s transition to cleaner technologies and fuels.

For this reason, AES SL recommends that administrative allocation should be the principal means of distributing emission allowances in the early years of the trading system. Over time, as market participants alter their investment decisions to reflect the new regulations, the allowance distribution methodology can gradually shift to full auctioning.

AES SL’s responses to the specific questions raised by the Ruling are presented below.

3.1. Evaluation Criteria

Q1. Please comment on each of the criteria listed by the MAC. Are these criteria consistent with AB 32? Should other criteria be added, such as criteria specific to the electricity and/or natural gas sectors? In making trade-offs among the criteria, which criteria should receive the most weight and which the least weight?

a. Reduces the cost of the program to consumers, especially low-income consumers,

Minimizing the cost to the economy and to all consumers should be an overall goal of the market design, and can also be a goal of the allocation formula. However, allocation should not be used as a form of social welfare that increases the disparity in costs between various rate classes.

b. Avoids windfall profits where such profits could occur,

This should be a concern, but can be mitigated by good data, strong economic modeling, and a broad, deep market-based system. As stated in the introduction, the administrative allocation of allowances should not lead to the conclusion that windfall profits will occur.

c. Promotes investment in low-GHG technologies and fuel (including energy efficiency),

This should be a priority. To meet California's long-term GHG reduction targets (2050 and beyond) the electric sector will have to transform the current power generation technology. This will require billions of dollars in capital investment. California cannot meet its GHG reduction goals through energy efficiency and renewables alone. A significant amount of attention must be focused on developing and commercializing low GHG emission fossil power generation technology.

d. Advances the State's broader environmental goals by ensuring that environmental benefits accrue to overburdened communities.

Ensuring that environmental benefits accrue to overburdened communities should not be an objective of the allocation methodology. Climate change is a global problem and does not create local hotspot issues.

e. Mitigates economic dislocation caused by competition from firms in uncapped jurisdictions,

Economic dislocation should be a factor in the allocation of allowances. However, it should not be the strongest factor.

f. Avoids perverse incentives that discourage or penalize investments in low-GHG technologies and fuels (including energy efficiency),

Same answer as (c.) See above.

g. Provides transition assistance to displaced workers, and

This issue should be addressed with revenues from emission auctions, rather than the granting of emission allowances.

h. Helps to ensure market liquidity.

This is a very important criterion for allocation. Regulated entities must have an assurance that allowances are readily available when needed in a timely manner. Additionally, the method of allocation should not interfere with an open, liquid and competitive wholesale electricity market. Finally, the allocation process must create and maintain a level playing field for all generators and retail providers, and should not discriminate between in-state and out-of-state resources.

3.2. Basic Options

These questions should be answered for both the electricity and natural gas sectors. If your recommendations differ for a load-based or deliverer/first seller point of regulation in the electricity sector, or for the natural gas sector, explain why.

AES SL's responses are directed to the electricity sector only.

Q2. Broadly speaking, should emission allowances be auctioned or allocated administratively, or some combination?

Initially, emission allowances should be largely allocated administratively, with a small percentage (e.g., 10-15%) auctioned. The percentage of allowances that are auctioned should gradually rise in the future and can ultimately reach 100%. The phase in period to full auctioning should be sufficiently long (e.g., 15 years or longer) to allow for the transition to low carbon electric generation technologies and enable companies to recover the investments they have made in California's

electricity sector without rendering them prematurely obsolete due to the added cost of procuring a significant percentage of their allowances through an auction.

- Q3. If you recommend partial auctioning, what proportion should be auctioned? Should the percentage of auctioning change over time? If so, what factors should be used to design the transition toward more auctioning?

See answer to Q2 above.

- Q4. How should new market entrants, such as energy service providers, community choice aggregators, or (deliverer/first seller system only) new importers, obtain emission allowances, i.e., through auctioning, administrative allocation, or some combination?

Under a load-based system, a portion of allowances should be set aside to allow for new entrants. These allowances could be freely allocated or auctioned. However, under a first-seller approach AES SL believes that some auctioning will be necessary to deal with imported power sold by marketers or through CAISO markets.

3.3. Auctioning of Emission Allowances—General Questions

These questions assume that some or all emission allowances are auctioned, and should be answered for both the electricity and natural gas sectors. If your recommendations differ for a load-based or deliverer/first seller point of regulation in the electricity sector, or for the natural gas sector, explain why.

AES SL's Comments are provided for the electricity sector only.

- Q5. What are the important policy considerations in the design of an auction?

If an auction is employed, the important policy considerations include the following:

- **Maximize liquidity, minimize market power**
- **Auctions need to be held frequently enough to allow participants to respond to changing marking conditions**
- **Sufficient quantity of allowances is available in a timely manner**
- **Transparency – auction rules are clear and simple**
- **Auction revenue should be dedicated to GHG technology development**

and GHG reductions

- **Include flexible compliance period (a minimum of 3 years with banking, offsets, etc).**
- **No restrictions on the development of robust secondary markets.**
- **Real time market monitoring must be employed to prevent participants from exercising market power or hoarding the allowances.**

Q6. How often should emission allowances be auctioned? How does the timing and frequency of auctions relate to the determination of a mandatory compliance period, if at all?

The appropriate frequency of auctions depends on the quantity of allowances auctioned relative to those administratively allocated and the availability of allowances in the secondary market. If a large portion of allowances have been administratively allocated, the secondary market is liquid, and the compliance period is sufficiently long (3 years), then an annual auction would be acceptable.

Q7. How should market power concerns be addressed in auction design? If emission allowances are auctioned, how would the administrators of such a program ensure that all market participants are participating in the program and acting in good faith?

AES SL does not have specific recommendation on this question.

Q8. What criteria should be used to designate the types of expenditures that could be made with auction revenues (including use to reduce end user rates), and the distribution of money within those categories?

The principal criterion should be that expenditures be used for efforts to reduce GHG emissions, in a cost-effective manner, to meet the State's goals. Within those parameters, the State should use auction revenues to:

- **Support R&D for advances in fossil fuel based low carbon power generation technology**
- **Support R&D for advances in renewable and energy efficiency technology**
- **Invest in carbon reduction projects that the market cannot reach (State and Federal forest lands, wildfire prevention efforts, State level water efficiency projects, county and local governments, agriculture, etc.)**

- **Mitigate costs on consumers**
- **Provide capital to low carbon technologies that intend to invest in production facilities in California**
- **Create a climate change adaptation program**

Q9. What type of administrative structure should be used for the auction? Should the auction be run by the State or some other independent entity, such as the nonprofit organization being established by the Regional Greenhouse Gas Initiative?

The auctions should be administered by an independent entity.

3.4. Electricity Sector

3.4.1. Administrative Allocation of Emission Allowances

Various methods have been proposed and discussed for the administrative allocation of emission allowances. The following potential methods could be used:

- Grandfathering: “A method by which emission allowances are freely distributed to entities covered under an emissions trading program based on historic emissions.” (MAC report, p. 93.)
- Benchmarking: “An allowance allocation method in which allowances are distributed by setting a level of permitted emissions per unit of input or output” (e.g., fuel used or sales to customers (pounds (lbs)/megawatt-hour or lbs/million British thermal units (MMBtu)). (MAC report, p. 90.)
- Updating: “A form of allowance allocation in which allocations are reviewed and changed over time and/or awarded on the basis of changing circumstances (such as output) rather than historical data (such as emissions, input or output). For example, allowances might be distributed based on megawatt-hours generated or tons of a product manufactured.” (MAC report, p. 96.)
- Other: Such as population (lbs of carbon dioxide (CO₂)/customer or lbs CO₂/capita), or cost of compliance (based on retail provider supply curves of emission reduction measures, or a comparable metric).

Answer each of the questions in this section, first, for a load-based system in the electricity sector and, second, for a deliverer/first seller system in the electricity sector. If your recommendations differ for a load-based or deliverer/first seller point of regulation, explain why.

Q10. If some or all allowances are allocated administratively, which of the above method or

methods should be used for the initial allocations? If you prefer an option other than one of those listed above, describe your preferred method in detail. In addition to your recommendation, comment on the pros and cons of each method listed above, especially regarding the impact on market performance, prices, costs to customers, distributional consequences, and effect on new entrants.

Under a First Seller approach, grandfathering should be the method of allocating allowances initially. California has great diversity in the age of its power generation fleet. It is unfair to require that at the outset of the program, the owners of power plants that are 30 or 40 years old must meet the emissions profile of plants built in the last decade. As it stands today, both the older and the more recently constructed plants are important to maintaining a reliable supply of electricity to California. Eventually, most, if not all of California's older plants will be repowered with new technology or shutdown. By initially distributing allowances based on historic emissions (grandfathering), owners of older generating sources will not be placed at an additional competitive disadvantage, compared to newer plants.

In time, a shift to a benchmarking and a higher percentage of auctioning should occur. Benchmarking will incentivize investments in low carbon generation technology. However, adequate time needs to be allowed for older generating assets to make the necessary investments in this technology. In addition, the State also needs to take care to not force a rush to today's best available fossil-based technology in a manner that hinders investment in ultra low emitting fossil-based technologies as they become available. This process can be managed by a gradual shift from grandfathering to benchmarking and a larger percentage of allowance auctioning.

Under a load-based system, the same answer applies. California's Load Serving Entities (LSE's) are significantly different in their generation supply. An immediate benchmarking system would punish LSE's that don't have the benefit of ample hydroelectric power or nuclear energy. However, after a gradual transition, a benchmarking system and a higher percentage of auctioning should apply to LSE's as well.

- Q11. Should the method for allocating emission allowances remain consistent from one year to the next, or should it change as the program is implemented?

See Q10 above.

- Q12. If new market entrants receive emission allowance allocations, how would the proper level of allocations be determined for them?

For new entrants, a benchmarking system should be employed.

- Q13. If emission allowances are allocated based on load/sales, population, or other factors that change over time, how often should the allowance allocations be updated?

AES SL does not have an opinion on this question at this time..

- Q14. If emission allowances are allocated based on historical emissions (“grandfathering”) or benchmarking, what base year(s) should be used as the basis for those allocations?

If allowances are allocated on a historic emission basis to the electric sector, then a three year average should be established beginning in 1997, to account for the changes in generation patterns that occurred as a result of California’s electric restructuring process and to capture a period of time before the details of GHG regulations were being actively considered. An average of generation (or sales) over a multi-year period would yield a more appropriate and representative reference than a single year.

- Q15. If emission allowances are allocated based initially on historical emissions (“grandfathering”), should the importance of historical emissions in the calculation of allowances be reduced in subsequent years as providers respond to the need to reduce GHG? If so, how should this be accomplished? By 2020, should all allocations be independent of pre-2012 historical emissions?

The importance of historical emissions should be reduced over time. The State should gradually shift to a benchmarking system. The pace of that shift depends on the state of technology in the power generation sector. The State should align the shift to benchmarking with the commercialization of low carbon fossil-based power technology. The State should not encourage a rush to today’s best available technology (CCGT), as this technology will likely have to be replaced before its

useful life ends in order to meet the State's long-term GHG reduction goals.

- Q16. Should a two-track system be created, with different emission allowances for deliverers/first sellers or retail providers with legacy coal-fueled power plants or legacy coal contracts? What are the factors and trade-offs in making this decision? How would the two tracks be determined, e.g., using an historical system emissions factor as the cut-off? How should the allocations differ between the tracks, both initially and over time? What would be the market impact and cost consequences to consumers if a two-track method were used?

AES SL does not support a two-track system as it adds unnecessary complexity to the allocation scheme.

- Q17. If emission allowances are allocated administratively to retail providers, should other adjustments be made to reflect a retail provider's unique circumstances? Comment on the following examples, and add others as appropriate:

- a. Climate zone weighting to account for higher energy use by customers in inclement climates,

This question is only applicable under a load-based system. Free allocation based on load-served or grandfathering would address this concern.

- b. Increased emission allowances if there is a greater-than-average proportion of economically disadvantaged customers in a retail provider's area.

This question is only applicable to a load-based system. Allocations should not take into account economically disadvantaged customers. The State should establish programs or enhance current policies to assist low income ratepayers impacted by the costs of GHG regulations.

- Q18. Should differing levels of regulatory mandates among retail providers (e.g., for renewable portfolio standards, energy efficiency investment, etc.) be taken into account in determining entity-specific emission allowance allocations going forward? For example, should emission allowance allocations be adjusted for retail providers with high historical investments in energy efficiency or renewables due to regulatory mandates? If those differential mandates persist in the future, should they continue to affect emission

allowance allocations?

A retail provider's compliance with existing regulatory mandates such as energy efficiency and RPS requirements will assist in achieving its emission target, thus allocation of additional allowances is not warranted.

- Q19. How often should the allowance allocation process occur? How far in advance of the compliance period?

The allocation distribution process should occur consistent with the allocation updating process. Allowances should be allocated as far in advance as possible to facilitate planning.

- Q20. What are the distributional consequences of your recommended emission allowance allocation approach? For example, how would your method affect customers of retail providers with widely differing average emission rates? Or differing rates of population growth?

AES SL has no comment on this question.

3.4.2. Emission Allowances with a Deliverer/First Seller Point of Regulation

- Q21. Would a deliverer/first seller point of regulation necessitate auctioning of emission allowances to the deliverers/first sellers?

For marketers and importers into the CAISO market, auctioning of allowances will be necessary to provide opportunities to acquire allowances for the sources they procure power from. However, for in-state generators, it is not necessary to auction allowances.

- Q22. Are there interstate commerce concerns if auction proceeds are obtained from all deliverers/first sellers and spent solely for the benefit of California ratepayers? If there are legal considerations, include a detailed analysis and appropriate legal citations.

AES SL has no comment.

- Q23. If you believe 100% auctioning to deliverers/first sellers is not required, explain how

emission allowances would be allocated to deliverers/first sellers. In doing so, answer the following:

- a. How would the amount of emission allowances given to deliverers/first sellers be determined during any particular compliance period?

Answer similar to Q. 10. Initially, the majority of allowances should be allocated administratively to in-state generating resources to account for the wide diversity of California's power generation fleet and the high costs necessary to transition this fleet to lower carbon technology. Allocations should initially be determined based on historical emissions. AES SL recommends the basis for this formula be a three year average of emissions that includes years after the electricity restructuring but prior to the California energy crisis period.

In time, California should increase the amount of allowances auctioned and decrease the amount allocated administratively. At the same time the basis for the administrative allocation can gradually shift from grandfathering to benchmarking.

- b. How would importers that are marketers be treated, e.g., would they receive emission allowance allocations or be required to purchase all their needed emission allowances through auctions? If allocated, using what method?

No comment.

- c. How would electric service providers be treated?

No comment.

- d. How would new deliverers/first sellers obtain emission allowances?

For new in-state resources, allowances could be allocated from set-aside pool based on output. For new importers of power, allowances must be purchased from auction.

- e. Would zero-carbon generators receive emission allowance allocations?

AES SL believes that zero-carbon generators should not receive an administrative allocation of allowances.

Zero carbon generators will already receive a benefit from the GHG regulations as a result of the higher electricity prices and a shift to less carbon intensive resources occurs.

- f. What would be the impact on market performance, prices, and costs to customers of allocating emission allowances to deliverers/first sellers?

No comment.

- g. What would be the likelihood of windfall profits if some or all emission allowances are allocated to deliverers/first sellers?

There is a lot of uncertainty surrounding the issue of windfall profits and how windfall profits are defined. Certainly, distributing allowances is akin to distributing currency. Under any allocation methodology, there will be entities that benefit (gain profit) and entities that suffer (lose profit). In a full auction, some recipients of the auction revenue would likely experience profits. Other market participants, including many of the regulated entities, would experience significant profit losses under a full auction scenario.

On the other hand, if all allowances are administratively allocated, certain recipients will undoubtedly realize additional profits. This is unavoidable as no allocation methodology is perfect. An objective of the allocation methodology should be to distribute the allowances in a manner that, over the long term, attempts to compensate market participants and those impacted in rough proportion to the costs incurred. The methodology for distributing allowances should also minimize the possibility of huge market dislocations and not result in significant unintended consequences.

It is for these reasons that AES SL supports an allocation methodology that begins with a larger percentage of administratively allocated allowances that are distributed based on historical emissions and then gradually transitions to more auctioning and benchmarking as the basis for the administrative allocation. Over the near term, this provides an opportunity for the regulated entities to recover the investments they have made under the old regulatory regime and receive some administratively allocated allowances as compensation for the cost impacts

associated with transitioning to lower carbon generating resources. As more allowances are auctioned, the consumers or end-users will become the primary beneficiaries of the auction revenues which is ultimately who will bear the largest share of program costs as prices of goods and services in the economy rise to reflect the cost of carbon.

This approach also minimizes the potential for large dislocations in the electricity sector and significant unintended consequences since the transition is gradual and emission reduction programs based on administrative allocations have been successfully implemented in the past.

- h. How could such a system prevent windfall profits?

Windfall profits can be prevented in various ways. Auctioning a portion of allowances initially and ultimately transitioning to full auctioning will help alleviate the concern over windfall profits. Regulators must employ strong economic modeling and begin with good data to ensure a more accurate and fair allocation process occurs. Neither of these steps were taken in the early years of the European Union Emissions Trading System (EU ETS). Also, administrative allocations should not be provided to zero emitting resources.

- Q24. With a deliverer/first seller point of regulation, should administrative allocations of emission allowances be made to retail providers for subsequent auctioning to deliverers/first sellers? If so, using what allocation method? Refer to your answers in Section 3.4.1., as appropriate.

No. From the point of view of the first-sellers, allocation to load-serving entities is more analogous to an auction rather than direct allocation, since it would require first-sellers to purchase allowances from those LSE's. If allowances were allocated to LSE's under a first-seller approach, AES SL would have concerns about the potential exertion of market power by the larger utilities, as well as how the allowances held by regulated entities will be made available for sale to the first sellers, particularly when those LSE's own generation that will also need allowances.

Q25. If you recommend allocation of emission allowances to retail providers followed by an auction to deliverers/first sellers, how would such an auction be administered? What kinds of issues would such a system raise? What would be the impact on market performance, prices, and costs to customers?

AES SL does not support this approach.

3.5. Natural Gas Sector

AES SL does not have comments on the questions in this section.

Q26. Answer each of the questions in Section 3.4.1. except Q16, but for the natural gas sector and with reference to natural gas distribution companies investor- or publicly-owned), interstate pipeline companies, or natural gas storage companies as appropriate. Explain if your answer differs among these types of natural gas entities. Explain any differences between your answers for the electricity sector and the natural gas sector.

Q27. Are there any other factors unique to the natural gas sector that have not been captured in the questions above? If so, describe the issues and your recommendations.

3.6. Overall Recommendation

Q28. Considering your responses above, summarize your primary recommendation for how the State should design a system whereby electricity and natural gas entities obtain emission allowances if a cap and trade system is adopted.

AES SL recommends that administrative allocation should be the principal means of distributing emission allowances in the early years of the GHG trading system. AES SL is supportive of a transition to allowance auctioning over time, but believes this should be gradual so as not to overburden regulated entities.

Conclusion

AES SL appreciates this opportunity to comment and the Commission's consideration of the comments listed herein.

Respectfully submitted this 31st day of October, 2007 at San Francisco, California.

Vitaly Lee
Vice President
AES SOUTHLAND L.L.C.

By /s/ Vitaly Lee
Vitaly Lee

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CERTIFICATE OF SERVICE

I, Lisa Vieland, certify that I have on this 31st day of October 2007 caused a copy of the foregoing

COMMENTS OF AES SOUTHLAND, L.L.C.

to be served on all known parties to R.06-04-009 listed on the most recently updated service list available on the California Public Utilities Commission website, via email to those listed with email and via U.S. mail to those without email service. I also caused courtesy copies to be hand-delivered as follows:

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I declare under penalty of perjury that the foregoing is true and correct. Executed this 31st day of October 2007 at San Francisco, California.

/s/ Lisa Vieland
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